The Cary Arboretum

of The New York Botanical Garden

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Greenhouse Center Gets Additions and Improvements

The greenhouse-nursery area of the Cary Arboretum on Route 82 has taken on a new look in the past few months.

Major landscaping and construction of a new building, a cold-storage house for plants, have changed the look of the grounds around the Cary greenhouse and irrigated nursery fields where young plants are cultivated for the Arboretum scientific collection.

The improvements have been coordinated by Robert S. Hebb, Cary horticulturist and Daniel F. Brown, capital projects manager for the Arboretum.

The cold-storage building which is built into the side of a hill, has been compared to a "giant root cellar." The large, single-chamber building measures 26 by 120 feet. It is designed to keep plants at a constant temperature just above freezing to give them a period of winter dormancy which most woody plants require to mature properly. This is an important part of the life cycle of a plant which starts as a seedling or cutting in the greenhouse, spends its first winter in the cold storage building, then is moved to the protective shade of a lath house, untill it grows large enough to go out into the plant nursery where the plant stays untill it is large enough for a permanent home on the grounds.

The structure was carefully planned to contain a number of environmental and energy saving features which are not found in conventional nursery storage facilities. Its rear wall has been set into a hillside, and a thick layer of soil has been backfilled around the exterior walls to act as natural insulation. In addition, all the interior walls and ceiling have been sprayed with a thick layer of urethane insulating foam. Heating requirements during the colder parts of winter to maintain an even 34° temperature will thus be minimal. On warm days, in late spring, refrigeration will be required to maintain the operating temperature but electrical requirements to run the refrigeration units are also minimized by the heavy insulation and semi-underground character of the building. After the middle of May, all plants will be moved out to be grown in the nurseries.

The building was designed by James Flynn, head of the architecture department at Dutchess Community College, in collaboration with Elting Burger, structural engineer, and William Scully for mechanical and structural engineering. The builder was R. Ciferri & Sons, Millbrook with Charles N. Still, plumbing, and Andrew Briggs, electrical work.

The appearance of the grounds has been greatly improved by grading, rototilling and seeding to grass, planting of shrubs, ground cover and ornamental trees, including large specimens of Serbian Spruce, Veitch Fir, Oriental Dogwood, Sweetbay Magnolia, and Mountain Laurel. In the spring, Sweet Gum trees will be placed around the parking lot, and large Tulip Trees and Cedars of Lebanon will be planted around the greenhouse area. Dwarf conifers and an experimental collection of unusual flowering perennials not commonly used for landscaping in this country will also be part of the plan, testing their qualities for garden use in this climate.

Mr. Flynn is also desigining a lath house to be constructed next year. This structure will serve as an intensive care nursery for seedlings emerging for the greenhouse, but not yet ready for full summer sun and

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The Cold Storage Building

Peter A. Dykeman
Coordinator of Education

When Peter Dykeman arrived at the Cary Arboretum in September of 1973, he says he had about three weeks of non-busy time to think about the education program and begin to put it together. The planning was obviously effective, because the program now encompasses some 14 courses for the general public, a college-level credit program with Purchase College and the New York Botanical Garden, a volunteer program, a consumer horticulture program in co-operation with Dutchess County Co-operative Extension, and summer sessions on nature study for students between 8 and 11. Winter session adult courses get underway in February.

In addition to the present education program, Mr. Dykeman is actively participating in plans for the remodeling of Gifford House, the 1817 red brick Federalist building on the Sharon Turnpike which will serve as the Education Center for the Cary Arboretum. The Education and Wildlife Center is now located in Leland Lovelace House, a remodelled 19th century farmhouse. Its very active, crowded office, in addition to normal uses, sometimes serves as a halfway house for abandoned baby wild animals, being fed with eyedroppers until they can be returned to their natural habitat, or as a storage place for educational materials ranging from bones to pinned insect specimens.

In this hectic atmosphere, Peter's stolid, Dutch ancestry is an asset. Peter believes that the Dykeman family, originally from Holland, moved from the lower Hudson Valley to Dutchess County in the 1860's. Peter has spent most of his life in Dutchess County. He was born in Poughkeepsie, raised in Pawling and now resides in Rhinebeck. He attended the College of Forestry at Syracuse University for one year, then transferred to the State University of New York at Albany where he graduated with a B.S. in Chemistry. After two summers of graduate work in physics at Albany and some years of science teaching, he returned to Syracuse as a member of the National Science Foundation Academic Year Institute where he completed an M.S. in general science with an emphasis in botany.

Peter returned to high school teaching in 1961 in the Hyde Park school system. He remained there until 1970 when he was accepted at Cornell University to major in environmental education. While at Cornell, he was the Graduate Assistant at Cornell Plantations, the university's natural and horticultural demonstration area, where he developed programs to acquaint Cornell students with their natural environment.

Before and since assuming the post of Education Coordinator at the Cary Arboretum, Peter has been writing his doctoral dissertation on the subject of the effectiveness of various media in attracting college students to campus natural areas. He has almost completed the work for the Ph.D. and will soon be Dr. Dykeman.

Not surprisingly, Peter's outside interests focus on camping and hiking activities, which are shared by his wife and three sons. He serves as assistant leader for a Boy Scout troop in Rhinebeck. Last summer he led a Leadership group from several troops (boys over 14) on a trip to the Boy Scout camp in Philmont, N.M., where they hiked and back-packed approximately 65 miles. He is also serving as choir director for the St. Paul's Lutheran Church in Rhinebeck "because", he says, "at the moment there is no one else to do it". He is a member of the Rhinebeck Environmental Commission and Chairman of the Dutchess County Environmental Management Council.

During the early stages of the Education Department's existence, Peter also undertook a study of Wilcox Park in Dutchess County, at the request of the Environmental Management Council of the County. The 84 - page report includes a detailed analysis of resources and recommendations for recreational and educational development in the Park. Printed in bound booklet form, the report is available through the Arboretum offices at $5.00 per copy.

In recent months, Peter has been working very closely with Cambridge Seven, a well-known Massachusetts architectural firm, which was engaged to design the interior renovations for Gifford House. The functional plan will use existing partitions throughout a good portion of the house. With the exception of re-locating the main entrance at the rear of the house, to screen out the highway, very little exterior change will take place. Once finished, Gifford House will embody innovative and unique education facilities such as a Teachers' Resource Center for environmental and horticultural education. This Center will house a variety of visual and curriculum aids to be used by environmental educators on a loan basis. Presently, there is no such facility available in this area. Gifford House will also contain a lecture room, a biology laboratory, a workshop, offices, a meeting room for volunteers, a photographic facility, an audio studio and a workroom in which graphics and exhibits will be prepared. The Education department hopes to be able to move into its new facility in the fall of 1976.

As Peter Dykeman lovingly displays the Gifford House plans, it is clear that his thoughts are racing away into the future when Gifford will be filled with students. Hectic? Yes, of course; but Peter Dykeman won't mind a bit.

Peter Dykeman

Special Lecture March 1 for Arboretum Friends

Dr. Howard S. Irwin, President of the New York Botanical Garden and Director of the Cary Arboretum, will present a lecture as part of the Friends of the Cary Arboretum program on Monday, March 1, at 7:30 p.m. at the Farm and Home Center, Route 44, Millbrook.

Dr. Irwin's topic will be "A Visit to the Botanical Gardens, Arboreta and Biological Preserves of the Soviet Union." The talk will be illustrated by slides taken by Dr. Irwin, who toured the nature preserves there in the fall of 1974 and summer of 1975 under an international scientific exchange program. While in the Soviet Union in 1974, Dr. Irwin acted as principal negotiator in laying the groundwork for an international agreement for preserving rare and endangered species. This agreement was signed by the United States and the Soviet Union later in that year.

Admission will be free to Friends of the Arboretum. Since space is limited, please make reservations as early as possible by calling Ms. Janice Claiborne at 677-5071. Coffee and refreshments will be served at the conclusion of the lecture.

Dr. Howard S. Irwin

Winter and Spring Courses

Several new offerings, of particular interest to local gardeners and students, will be added to the Arboretum winter and spring education program. The first course will begin in February, and the program will continue through June.

Courses offered include: ECONOMIC BOTANY, taught by Dr. Thomas Elias, Assistant Director of the Arboretum; BOTANICAL ILLUSTRATION with Ms. Ruth Brunstetter, artist and sculptor; IMPROVING YOUR HOME LANDSCAPE, taught by Carlton Lees, landscape designer, lecturer and author, who is Vice President of the NYBG; GARDENING TECHNIQUES by Alton Keller of Dutchess County Co-Operative Extension Service; MAPLE SUGARING with Peter Dykeman, Education Coordinator; ROCK GARDENING, taught by Lincoln Foster, one of New England's foremost rock garden enthusiasts; PLANT MATERIALS FOR YOUR HOME with Robert Hebb, Horticulturist at the Arboretum; HERB GARDENING by Mrs. Marion Lukens, local herb specialist; BIRD IDENTIFICATION AND HABITS, taught by Dr. Robert Tillman, Coordinator of Wildlife Resources at the Arboretum; MOSSES—A WORLD IN MINIATURE, taught by Dr. William Steere of the NYBG staff; TREE DISEASES IN THE MODERN ENVIRONMENT with Dr. Edson Setliff and Dr. David Karnosky, both research scientists at the Arboretum; SPRING FUNGI—IN SEARCH OF THE ELUSIVE MOREL, also taught by Dr. Setliff; MANAGING YOUR POND OR STREAMSIDE FOR WILDLIFE AND PLEASURE with Dr. Tillman; and FERN IDENTIFICATION, taught by Dr. John Mickel of the NYBG staff.

A new slide talk series will be offered, entitled RESEARCH AND ITS APPLICATIONS, and the popular one-session slide talks and walks will take place during February, April and May, covering BOTTLE GARDENS, TREE FLOWERS, SPRING WILD FLOWERS, POISONOUS PLANTS and NATURE WALKS.

Course schedules range from six sessions to one-hour walks and talks, and are held during daytimes and evenings. A moderate tuition fee is charged for each course or talk. Friends of the Arboretum receive a discount on all courses.

Full outlines, dates, registration information and tuition information for the winter-spring program is available by calling the Education and Wildlife Center of the Cary Arboretum at 677-5348 (please note the new telephone number) or by writing to Coordinator of Education, The Cary Arboretum, Box AB, Millbrook, New York 12545

Oxford-Trained Botanist Supervises Research at Cary

Dr. Ghillean (Iain) T. Prance has recently been appointed as Director of Botanical Research at the New York Botanical Garden and has assumed responsibility for supervision of overall research at the Cary Arboretum.

Dr. Prance, a native of England and Scotland, is a graduate of Oxford University and most recently served as B.A. Krukoff Curator of Amazonian Botany at the New York Botanical Garden. Since 1964, he has spent at least several months of each year in Brazil, collecting specimens for a plant survey of Brazilian Amazonia. About 60,000 specimens have been collected during these field trips, which were financed by a series of grants from the National Science Foundation.

Dr. Prance's last stay in Brazil lasted 27 months. During that time he founded a graduate program in tropical botany at the Instituto Nacional Pesquisas da Amazonia (the University of Amazonia) at Manaus. This was the first such department in Northern Brazil. He returned to Brazil during the fall of 1975 to witness the first graduation of students in the program.

With the help of a student from the joint Purchase College—NYBG project, Dr. Prance will computerize data from his expedition using the Arboretum computer facility. This information will eventually be used in compiling a basic inventory of Amazon vegetation.

Dr. Prance has also done significant work in ethnobotany, the study of how people use plants within a culture. Because the small tribal- or village-based Amerind cultures in the Amazon region are being swallowed up by the development of the area, it is important to collect examples of the plants and information about them before they are permanently lost.

During Dr. Prance's last expedition to Brazil, the Canadian Film Board, a government agency known for its outstanding documentary films, photographed many hours of footage of his work, gathering specimens and working with the Amerind tribes. This footage will be edited into a film by the NYBG Public Affairs Department and will be shown through the various educational facilities of the Garden and the Arboretum, starting sometime in 1976.

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winter wind. Studies of sun angles were done during the design phase to determine a design that would provide maximum sun during the autumn. As a result, laths will be spaced 9 inches apart instead of the narrower intervals used in conventional lath houses.

Improvements have also been made in the heating and electrical systems serving the Cary greenhouses. A new backup boiler system was installed, and the capacity of the electrical system has been doubled. It is planned to subdivide the large potting room inside the greenhouse into offices and a small laboratory for scientific tests and to plant vines outside to cover the masonry walls.

Main Greenhouse and Headhouse

Publications

Two members of the NYBG staff have just published "Plants at a Glance," a publication which combines basic information about plants in a unique tabletop display unit.

Dr. E.T. Henke and E.K. Schofield combined their talents to produce a book consisting of removable 4" x 6" cards on which illustrations and information are printed, attached to a clear acrylic base which can sit on a counter or tabletop for easy access to the information.

The subject matter is a thorough introduction to 78 of the most frequently grown indoor plants with helpful information about soil, water, temperature, light, problems and remedies.

"Plants at a Glance" is available at the Shop in the Garden at the Botanical Garden for $10.00 plus tax.

Armand Lovelace Retires

Armand Lovelace, whose profile appeared in the first issue of the Cary Arboretum Newsletter, reached retirement age on December 1, 1975, marking 49 years of service on the Cary property. Armand began working for the Flagler family when he was 16 years old and was assigned the care of "Cannoo Hills" when Mr. and Mrs. Melbert Cary acquired their estate, which became the present Arboretum. He has continued working as caretaker for the Cary Arboretum since 1971.

Armand was honored by the Arboretum staff at a surprise retirement party on December 1st where it was announced that he would remain on the staff until January of 1976, to make his long and devoted service a full 50 years.

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THE NEW YORK
BOTANICAL GARDEN

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